CLAIMS

1. A microhole-formed stretched porous polytetrafluoroethylene material, characterized in that a microhole having a hole diameter greater than an average pore diameter of a stretched porous polytetrafluoroethylene material having a microporous structure comprising fibrils and nodes connected to each other by the fibrils is formed in the stretched porous polytetrafluoroethylene material by irradiation of a pulse laser beam having a pulse length of at most 10 picoseconds, and the microporous structure of the wall surface of the microhole is substantially retained without being destroyed.

2. The microhole-formed stretched porous polytetrafluoroethylene material according to claim 1, wherein the hole diameter of the microhole is from 0.1 μm to 1,000 μm.

3. The microhole-formed stretched porous polytetrafluoroethylene material according to claim 1, wherein the stretched porous PTFE material has a porosity of at least 20% and an average pore diameter of at most 10 μm.

4. The microhole-formed stretched porous polytetrafluoroethylene material according to claim 1,

wherein the stretched porous polytetrafluoroethylene material is a stretched porous polytetrafluoroethylene sheet or film having a thickness of from 5 μm to 3 mm.

5. The microhole-formed stretched porous polytetrafluoroethylene material according to claim 1, wherein the wall surface of the microhole shows a smooth form having none of fissures, irregularities and cracks having a depth of at least 0.5 x A, wherein A is a diameter of an opening portion formed by the irradiation of the pulse laser beam.

6. The microhole-formed stretched porous polytetrafluoroethylene material according to claim 1, wherein an opening portion of the through-hole draws an even contour line of a prescribed form, and no burr-like protuberance having a height of at least 30 μm is present at an opening edge of the through-hole.

7. The microhole-formed stretched porous polytetrafluoroethylene material according to claim 1, wherein the microhole is formed by irradiating the stretched porous polytetrafluoroethylene material with the pulse laser beam in a state that the stretched porous polytetrafluoroethylene material has been supported on a support, and at this time, using, as the support, a support provided with a site coming into no contact with the

stretched porous polytetrafluoroethylene material at a region corresponding to a target region of the stretched porous polytetrafluoroethylene material, in which the microhole is formed.

8. A process for producing a microhole-formed stretched porous polytetrafluoroethylene material, which comprises irradiating a stretched porous polytetrafluoroethylene material having a microporous structure comprising fibrils and nodes connected to each other by the fibrils with a pulse laser beam having a pulse length of at most 10 picoseconds to form a microhole having a hole diameter greater than an average pore diameter of the stretched porous polytetrafluoroethylene material, wherein the microporous structure of the wall surface of the microhole is substantially retained without being destroyed.

9. The production process according to claim 8, wherein the stretched porous polytetrafluoroethylene material is irradiated with the pulse laser beam in a state that the stretched porous polytetrafluoroethylene material has been supported on a support, and at this time, a support provided with a site coming into no contact with the stretched porous polytetrafluoroethylene material at a region corresponding to a target region of the stretched porous polytetrafluoroethylene material, in which the

microhole is formed, is used as the support.

10. The production process according to claim 9, wherein the support provided with the site coming into no contact with the stretched porous polytetrafluoroethylene material is a support provided with a bore as the site at the region corresponding to the target region of the stretched porous polytetrafluoroethylene material, in which the microhole is formed.

11. The production process according to claim 8, wherein the pulse length of the pulse laser beam irradiated is from 10 femtoseconds to 10 picoseconds.

12. The production process according to claim 8, wherein the fluence of the pulse laser beam irradiated is at least 0.1 J/cm^2.

13. The production process according to claim 8, wherein the fluence of the pulse laser beam irradiated is 0.1 to 20 J/cm^2.

14. The production process according to claim 8, wherein the wavelength of the pulse laser beam irradiated is from 200 nm to 1 μm.

15. The production process according to claim 8,

wherein the hole diameter of the microhole is from 0.1 μm to 1,000 μm.

16. The production process according to claim 8, wherein the stretched porous polytetrafluoroethylene material has a porosity of at least 20% and an average pore diameter of at most 10 μm.

17. The production process according to claim 8, wherein the stretched porous polytetrafluoroethylene material is a stretched porous polytetrafluoroethylene sheet or film having a thickness of from 5 μm to 3 mm.

18. A process for abrading a material to be wrought by irradiation of a pulse laser beam, which comprises irradiating the material to be wrought with the pulse laser beam in a state that the material to be wrought has been supported on a support, and at this time, using, as the support, a support provided with a site coming into no contact with the material to be wrought at a region corresponding to a target working region of the material to be wrought.

19. The abrading process according to claim 18, wherein the support provided with the site coming into no contact with the material to be wrought is a support provided with a bore as the site at the region

corresponding to the target working region of the material to be wrought.

20. The abrading process according to claim 18, wherein the pulse length of the pulse laser beam irradiated is from 10 femtoseconds to 10 picoseconds.

21. The abrading process according to claim 18, wherein the fluence of the pulse laser beam irradiated is at least 0.1 J/cm^2.

22. The abrading process according to claim 18, wherein the fluence of the pulse laser beam irradiated is at most 20 J/cm^2.

23. The abrading process according to claim 18, wherein the wavelength of the pulse laser beam irradiated is from 200 nm to 1 μm.

24. The abrading process according to claim 18, wherein the material to be wrought is an organic polymeric material.

25. The abrading process according to claim 24, wherein the organic polymeric material is a fluorocarbon resin material.

26. The abrading process according to claim 25, wherein the organic polymeric material is a porous fluorocarbon resin material.

27. The abrading process according to claim 26, wherein the porous fluorocarbon resin material is a stretched porous polytetrafluoroethylene material.